

Re: Hydrazine Detected at a Residential Well  
Rick Sugatt  
to:  
Jim Dilorenzo  
08/10/2010 10:45 AM  
Show Details

The detected concentration of hydrazine (50 ng/L) is higher than the EPA Regional Screening Level (RSL) for tapwater for hydrazine (22 ng/L). Since the RSL is associated with an excess cancer risk of  $1E-06$ , the screening level risk of the detected concentration is 2.27 times higher ( $50/22 = 2.27$ ), or about  $2.3E-06$ . This screening level excess cancer risk is within EPA's acceptable risk range of  $1E-06$  to  $1E-04$ . Therefore, the detected concentration does not result in an excess risk above EPA's acceptable risk range.

From: Jim Dilorenzo/R1/USEPA/US  
To: Rick Sugatt/R1/USEPA/US@EPA  
Cc: HFord@nobisengineering.com, Joseph.Coyne@state.ma.us  
Date: 08/10/2010 09:45 AM  
Subject: Hydrazine Detected at a Residential Well

Rick - In addition to the NDPA question I sent you yesterday, can you please confirm that the detected concentration of hydrazine (50 ng/l) in a different drinking water well does not result in an excess risk?

A copy of the complete results are on page 3 of the attached file.

I would appreciate feedback on both these questions by the Thursday (if possible).

Thanks -  
Jim

[attachment "8.4.10 \_Final..pdf" deleted by Rick Sugatt/R1/USEPA/US]

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**SUMMARY OF PRIVATE RESIDENCE WELL MONITORING DATA <sup>1</sup>  
AND COMPARISON TO FEDERAL AND MASSACHUSETTS DRINKING WATER STANDARDS/GUIDELINES**

**RESIDENCE**

Parameter	Sample Results	Units	Drinking Water Standard/Guideline	Type of Standard/Guideline
<b>Volatiles</b>				
Methyl Tertbutyl Ether	0.00084 J	mg/L	0.07	ORSG
<b>Semi-Volatiles</b>				
Benzoic Acid	0.0011 J	mg/L	NS	NS
Di-n-butylphthalate	0.0017 J	mg/L	NS	NS
<b>N-Nitrosodimethylamine</b>				
Not Detected	--	--	--	--
<b>N-Nitrosodi-n-propyl-amine</b>				
Not Detected	--	--	--	--
<b>Metals</b>				
Calcium, Total	94	mg/L	NS	NS
Sodium, Total	20	mg/L	20	ORSG
<b>Ammonia</b>				
Not Detected	--	--	--	--
<b>Anions</b>				
Sulfate as SO <sub>4</sub>	29	mg/L	250	SMCL
Nitrate	--	--	--	--
Chloride	110	mg/L	250	SMCL
<b>Hydrazines</b>				
Hydrazine	0.00005 J	mg/L	--	--

**Notes:**

-- Results are non-detect.

NS - No standard or guideline available

MCL - Federal and Massachusetts Maximum Contaminant Level - USEPA, 2009; MassDEP, 2010

SMCL - Federal and Massachusetts Secondary Maximum Contaminant Level - USEPA, 2009; MassDEP, 2010.

ORSG - Massachusetts Drinking Water Guideline - MassDEP, 2010.

J - Value is estimated

mg/L - milligrams per liter

Prepared By: KASK 7/15/10

Checked By: DLC 7/15/10

<sup>1</sup>Data were collected in March 2010. Shading indicates a concentration greater than the standard/guideline for that parameter.

Massachusetts Department of Environmental Protection (MassDEP), 2010. 2010 Standards and Guidelines for Contaminants in Massachusetts Drinking Water.

USEPA, 2009. 2009 Edition of the Drinking Water Standards and Health Advisories, EPA 822-R-09-011.